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## MANAGEMENT

DAIRY AND LIVESTOCK EFFICIENCY  
Duane L. Stevenson, Jr.  
Multicounty Farm Management Agent

In today's agriculture, one needs to have a handle on the costs as well as the gross revenue.

The profit margin has narrowed over the last several years, thus leaving little room for mismanagement or mistakes.

Here are some basic questions that every livestock producer should know the answers to:

- How much does it cost to produce 100 pounds of milk?
- What are the returns per \$100 of feed fed?
- How much does it cost for me to produce a pound of pork, beef, lamb, poultry, or fish?
- What is the breakeven cost for my livestock enterprises?
- What are the number of pigs farrowed and weaned per litter?
- What is the percent of calf crop?
- What is the milk production per cow, milk composition, and quality?
- What is the average daily gain of my livestock enterprise(s)?
- What percent of death loss was encountered of the total weight produced?
- What is the dry cow percentage of total dairy herd?

The above questions are just examples of some of the information we should be concerned about when addressing profitability and efficiency of livestock enterprises.

Some of these questions can be viewed as being efficiency measures of an enterprise. It is hard to do a good job marketing if we don't know the costs involved in producing the saleable product.

After reviewing the above questions, how did your livestock operation fair for 1991? What changes will you be making in 1992 or future years to improve profitability on your farming operation?

Every farmer wants to increase net farm income.

**Records:** The first step in determining the answers to the above questions and others is reviewing 1991's records and finding out the actual costs that were involved in producing the product that your farming operation is marketing.

At this point, we can begin to realize how valuable records are in measuring the efficiency of the farming enterprises. If you have a good set of records, the information needed to measure the efficiencies of the livestock enterprises will be fairly simple. A good set of records should include tax information, as well as financial information, along with production information, which includes realistic inventories.

Livestock records can be divided into four major categories: mortality, breeding, performance, and feed. Performance records can be broken down into birth records and production records. If your record keeping system is inadequate or not complete, make the necessary changes in your system in 1992. Good records require time and organization, so the records can be reviewed easily at a later time.

After getting out your 1991 records, you need to know what information is needed to analyze the livestock enterprise(s). Keep in mind that the more detailed your farm business records are the easier it will be to extract the information needed.

To evaluate an enterprise, we need to determine what costs are involved in operating it. There are two main categories of expenses that you will be working with — variable (operating) and fixed costs. Variable costs are defined as those costs which change as production varies over production cycle or season. Variable costs are associated with the amount of sales of the business, with inputs or costs that are changed or used in the production of an output or product. Operating costs are avoidable in the sense and can be controlled because they vary with the level of production.

Some examples of variable costs that may be encountered in a livestock enterprise are feed, hired labor, veterinary expenses and medicine, equipment and machinery repairs, utilities, milk hauling, marketing, advertising, bedding, livestock supplies, insurance, market livestock purchases, and other cash costs.

The largest single operating cost of livestock production, excluding market livestock purchases, is feed. Feed costs account for 50 percent to 80 percent of the total cost of producing meat or other livestock products.

Keep in mind the production costs of crops grown for livestock consumption as well as the purchased feed. Crops that are grown for livestock enterprises are not free.

Fixed costs are often referred to as overhead costs or ownership costs. Fixed costs are the same for the farm bus-

ness whether the value of output or gross production sales is \$0 or \$100,000. Depreciation, interest, and taxes are examples of fixed costs.

Production and feed determinations are the major efficiency measures that can be pulled from a general set of farm accounts and records for livestock. Measures of production relate to output per livestock units, such as pigs farrowed or weaned per litter, percent of calf crop or pounds of calf weaned per cow, milk per cow, and weight gain per day. Feed efficiency can be a physical or financial measure. However keep in mind that the amount of feed required to produce a pound of meat, a dozen eggs, or 100 pounds of milk can be determined also. In most cases the only requirement is to have a record of the weights of feed, livestock, and products purchased and sold.

A logical approach to feed costs is to establish whether the problem is price or quantity. Are quantities excessive on a per-animal-day basis or per-unit-of-gain basis? If not, look carefully at price. If cost per unit (pounds) is not excessive, then quantity must be, if a problem exists. If the problem is quantity, is it quantity per animal day (indicating waste) or only quantity per pound of production (indicating ration quality, imbalance, or animal health problems resulting in subperformance)?

#### Production Performance Guides:

##### Beef

##### Production:

One should note that the following recommendations are generally accepted figures and should be adjusted accordingly for various frame size cattle, breeds of cattle, the respective ages of cattle, the sex of the cattle, and the objective of the cattle for your particular management.

1. Rapid gains promote improved feed conversion.
  - a. At 1.5 pounds per day gain (600 pound cattle) maintenance alone requires 53 percent feed.
  - b. At 2.6 pounds per day gain (600 lb. cattle) maintenance alone requires 39 percent of feed.
  - c. Maintenance gains of 1.5 to 2.6 should increase

growth of individual animals but should not necessarily add excess fat or overconditioning.

d. Maintenance and growing rations should be different from finishing rations.

2. Slow winter gains result in more feed per pound of gain. Slow winter gains usually must be compensated for by cheap spring and summer pasture gains. Pasture gains should be fairly equal to the maintenance gains on the same cattle, resulting in a gain of 1.5 to 2.5 pounds per day on quality pasture.

3. A general rule of thumb is that for 100 pounds live body weight, you will need to feed 2 pounds of grain per head per day. So a 600-pound animal should be getting 12 pounds of grain or equivalent feeds.

4. Strive for a minimum of 2.5 pounds to a maximum of 4 pounds per day salable gain in the finishing period. This will depend on the finishing ration, the manner of feeding (such as unlimited self-feeding or hand-feeding), the stage and condition of the cattle when they begin the finishing period, the length of the feeding period, and the weight/quality grade desired for the end product. Finishing 750-800 pound grass-fed steers could gain 350 to 400 pounds in 100 days on a 16 percent self-fed ration, yielding a 1,110 to 1,200 pound live weight, producing a 700 to 800 pound select to choice carcass.

**Death Loss** — strive for zero! Loss is usually attributed to shipping, weather conditions upon arrival and during shipping, and prehandling techniques and procedures prior to sale or shipping.

1. Under 2 percent for long-fed calves.
2. Under 1 percent for long-fed yearlings.
3. Under .6 percent for short-fed yearlings

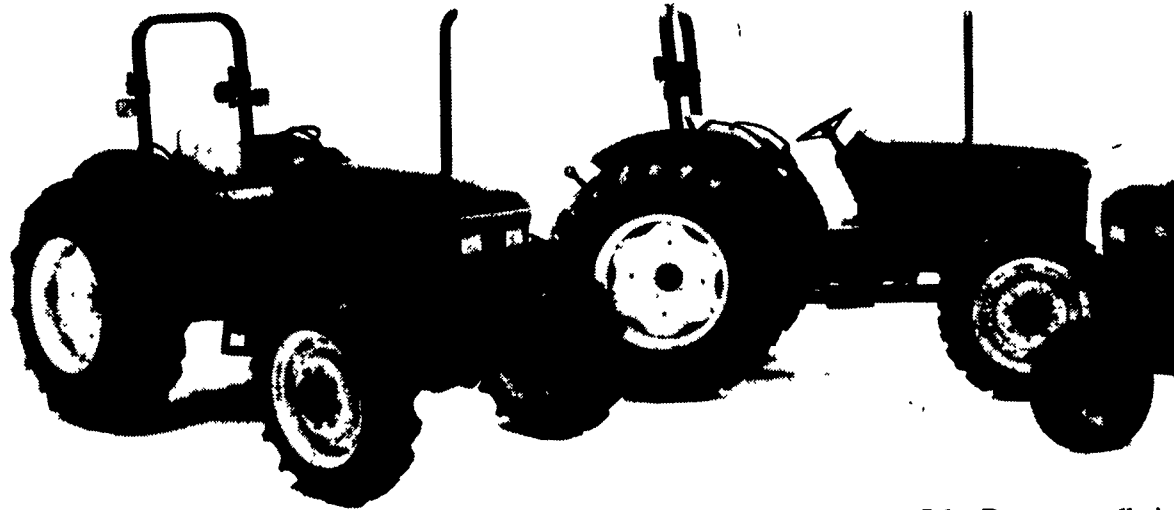
**Feeding Margins**

1. Operating on a negative feeding margin (buying price per pound is higher than selling price per pound):
  - a. As the negative margin widens, it becomes increasingly important for the gain added to the feeder animal to make up a higher proportion of the final weight.

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